

### **Amendments to the specification**

Please amend the passage at page 1 lines 9 to 30 as follows:

Fibre-optic transmission systems are now being developed for tens of gigabits-per-second (Gbit/s) communication channels, whilst large volumes of 10 Gbit/s systems are being fully deployed into existing networks. Various potential limits are approached as the performance of such transmission systems is pushed further. The phenomenon of polarisation mode dispersion, PMD, is a problem recently attracting a great deal of attention from the telecommunications industry. PMD is a type of distortion that varies from fibre to fibre and is typically of greater magnitude in older fibres. PMD is also a random phenomenon, varying with both time and optical frequency. ~~Whilst~~ While service providers are reluctant to invest in new fibre routes, PMD may restrict the deployment of new systems over the older fibre routes of their network. In a small number of fibres, PMD will give rise to distortions so large that a 10Gbit/s optical transmission system cannot be reliably deployed over the route. The impact of PMD scales linearly with system bit-rate, hence PMD will become a greater problem as the bit-rate of systems are increased. It is for these reasons that PMD solutions have to be found.

**Amendments to the drawings**

Please replace the drawings with the replacement drawings attached.